

AMENDMENTS TO THE CLAIMS

This listing of the claims will replace all prior versions and listing of the claims in this application.

Listing of the Claims:

1. (Currently amended) A closed circuit broadcast security receiver comprising: a data receiving device adapted for receiving video data from a radio module transmitter configured at a first location to be monitored, said first data receiving device including: a multi-antenna signal processing circuit being further adapted to: (a) receive M independent RF modulated input signals from said radio module transmitter and other radio module transmitters representing said video data; and (b) process said M independent RF modulated input signals using a channel mixing matrix and a signal from a second multi-antenna signal processing circuit to extract said video data transmitted by said radio module transmitter and other radio module transmitters.
2. (Currently amended) The closed circuit broadcast security receiver of claim 1, wherein said multi-antenna signal processing circuit is enabled and selectively operates in [[said]] a second mode when channel conditions indicate that a data rate in said channel has fallen below a predetermined threshold.
3. (Original) The closed circuit broadcast security receiver of claim 1, wherein said multi-antenna signal processing circuit is enabled and selectively operates in response to a determination that a data rate in said channel is to be enhanced above a nominal operating rate.
4. (Original) The closed circuit broadcast security receiver circuit of claim 1, wherein said multi-antenna signal processing circuit is enabled and selectively operates in response to a determination that there is noise and/or interference in said channel.

5. (Original) The closed circuit broadcast security receiver circuit of claim 1, wherein said multi-antenna signal processing circuit is compatible with an 802.11x communications protocol.

6. (Original) The closed circuit broadcast security receiver circuit of claim 1 wherein said multi-antenna signal processing circuit is configured as a multiple-in, multiple out (MIMO) processor.

7. (Original) The closed circuit broadcast security receiver circuit of claim 1, wherein said multi-antenna signal processing circuit demodulates a data stream transmitted using multiple independent antennas which each transmit a portion of said data stream, which data stream represents captured video from N separate radio module transmitters.

8. (Original) The closed circuit broadcast security receiver circuit of claim 1, wherein said multi-antenna signal processing circuit generates a speculative response to ensure that said data receiving device complies with timing requirements of a communications protocol.

9. (Original) The closed circuit broadcast security receiver circuit of claim 8, wherein said timing requirements are associated with an 802.11x compatible data link.

10. (Currently amended) A closed circuit video system comprising: a first data capture device for monitoring and capturing video data from a first location; said first data capture device further including a radio module transmitter to transmit said data to a second data storage location; a first data receiving device at a second separate location for receiving said video data from said radio module transmitter, said first data receiving device including: a multi-antenna signal processing circuit being further adapted to: (a) receive M independent RF modulated input signals from said radio module transmitter and other radio module transmitters representing said video data; and (b) process said M independent RF modulated input signals using a channel mixing matrix and a signal from a second multi-antenna signal processing circuit to extract said video data transmitted by said radio module transmitter and other radio module transmitters; a data storage device for storing said video data captured from said first monitored location and transmitted to said first data receiving device.

11. (Original) The closed circuit video system of claim 10, wherein said first data capture device is used as part of a security system.

12. (Original) The closed circuit video system of claim 10, wherein said multi-antenna signal processing circuit is incorporated within a personal digital assistant.

13. (Original) The closed circuit video system of claim 10, wherein said first data capture device is a digital camera.

14. (Original) The closed circuit video system of claim 10, wherein said multi-antennal signal processing circuit receives and processes video data from N radio module transmitters simultaneously.

15. (Original) The closed circuit video system of claim 10 wherein said radio module transmitter is configured to transmit said RF modulated signals selectively to said second separate location.

16. (Original) The closed circuit video system of claim 10 wherein said first data capture device transmits said video data using N separate antennas simultaneously as N separate bit streams.

17. (Currently amended) A radio frequency (RF) multi-antenna video data receiver implemented in a single chip integrated circuit chip (IC) comprising: a multi-antenna signal processing circuit within the single chip IC being adapted to: (a) receive M independent RF modulated input signals from N separate video camera radio module transmitters, where $N > 1$; and (b) simultaneously process said M independent RF modulated input signals using a channel mixing matrix and a signal from a second multi-antenna signal processing circuit to extract N video data signals transmitted by said N separate video camera radio module transmitters; wherein said multi-antenna signal processing circuit is operated selectively to enhance an operating transmission range and/or an operating data rate of one or more separate baseband processors which also receive video data from said N separate video camera radio module transmitters.

18. (Original) The RF multi-antenna video data capture system of claim 17, wherein said multi-antenna signal processing circuit processes at least 4 separate input signals representing a data stream multiplexed over 4 separate bit streams.

19. (Original) The RF multi-antenna access point system of claim 17, wherein space division multiple access is realized by separating different RF signals from different signal paths simultaneously in the single chip IC.

20. (Original) The RF multi-antenna access point system of claim 17, wherein a localized encryption is achieved by independently controlling an energy modulation of separate transmission antennas used simultaneously by each of said M separate transmission signals, so that data signals received by unintended recipients are indistinguishable from noise.

21. (Currently amended) An apparatus comprising:

a first data receiving circuit capable receiving data; and

a multi-antenna signal processing circuit capable of:

monitoring channel conditions;

operating in a first mode;

receiving M independent signals representing the data; and

processing the M independent signals using a channel mixing matrix and a signal from a second multi-antenna signal processing circuit to extract the data.

22. (Previously presented) An apparatus according to claim 21, wherein the multi-antenna signal processing circuit is capable of operating in a second mode in response to channel conditions indicating that a data rate in the channel has fallen below a predetermined threshold.

23. (Previously presented) An apparatus according to claim 21, wherein the multi-antenna signal processing circuit is capable of operating in a second mode in response to a determination that a data rate in the channel is to be enhanced above a nominal operating rate.

24. (Previously presented) An apparatus according to claim 21, wherein the multi-antenna signal processing circuit is enabled and selectively operates in a second mode in response to a determination that there is noise and/or interference in the channel.

25. (Previously presented) An apparatus according to claim 21, wherein the multi-antenna signal processing circuit is compatible with an 802.11x communications protocol.

26. (Previously presented) An apparatus according to claim 21, wherein the multi-antenna signal processing circuit is configured as a multiple-in, multiple out (MIMO) processor.

27. (Previously presented) An apparatus according to claim 21, wherein the multi-antenna signal processing circuit is capable of demodulating a data stream transmitted using multiple independent antennas which transmit a portion of the data stream, which data stream represents captured video from N separate radio module transmitters.

28. (Previously presented) An apparatus according to claim 21, wherein the data is video data.

29. (Currently amended) A system comprising:

a first data monitoring and capturing circuit capable of receiving data from a first location;

a transmitter to transmit the data to a second location;

a first data receiving circuit at the second location for receiving the data;

a multi-antenna signal processing circuit capable of:

receiving M independent modulated signals representing the data;

and

processing the M independent modulated signals using a channel mixing matrix and a signal received from a second multi-antenna signal processing circuit to extract the data; and

a data storage circuit capable of storing the data.

30. (Previously presented) A system according to claim 29, wherein the first data monitoring and capturing circuit is part of a security system.

31. (Previously presented) A system according to claim 29, wherein the multi-antenna signal processing circuit is incorporated within a personal digital assistant.

32. (Previously presented) A system according to claim 29, wherein first data monitoring and capturing circuit is a digital camera.

33. (Previously presented) A system according to claim 29, wherein the multi-antenna signal processing circuit is capable of receiving and processing data from N radio module transmitters simultaneously.

34. (Previously presented) A system according to claim 29, wherein first data monitoring and capturing circuit is capable of transmitting the data using N separate antennas simultaneously as N separate bit streams.

35. (Previously presented) A system according to claim 29, wherein the multi-antenna signal processing circuit is capable of processing at least 4 separate input signals representing a data stream multiplexed over 4 separate bit streams.

36. (Previously presented) A system according to claim 29, implemented in a single chip integrated circuit.

37. (Previously presented) A system according to claim 29, wherein a localized encryption is capable of being enabled by independently controlling an energy modulation of separate transmission antennas used simultaneously or nearly simultaneously by the M separate modulated signals.

38. (Canceled)
39. (Canceled)
40. (Canceled)
41. (Canceled)
42. (Canceled)
43. (Canceled)
44. (Canceled)
45. (Canceled)
46. (Currently amended) A method comprising:
 - receiving data at first location;
 - transmitting the data to a second location;
 - receiving the data at a second location, the data comprising M independent modulated signals;
 - processing the M independent modulated signals using a channel matrix and a recovered data signal to extract the data; and
 - storing the data.
47. (Previously presented) A method according to claim 46, further comprising processing the data from N radio module transmitters simultaneously.
48. (Previously presented) A method according to claim 46, further comprising transmitting the data via N separate antennas simultaneously as N separate bit streams.

49. (Previously presented) A method according to claim 46, further comprising controlling an energy modulation of separate transmission antennas capable of receiving the M separate modulated signals.

50. (Previously presented) A method according to claim 46, wherein the data is video data.

51. (Currently amended) An apparatus comprising:

means for receiving data at first location;

means for transmitting the data to a second location;

means for receiving the data at a second location, the data comprising M independent modulated signals;

means for processing the M independent modulated signals using a channel mixing

matrix and a recovered data signal to extract the data; and

means for storing the data.

52. (Previously presented) An apparatus according to claim 51, further comprising means for processing the data from N radio module transmitters simultaneously.

53. (Previously presented) An apparatus according to claim 51, further comprising means for transmitting the data via N separate antennas simultaneously as N separate bit streams.

54. (Previously presented) An apparatus according to claim 51, further comprising means for controlling an energy modulation of separate transmission antennas receiving the M separate modulated signals.

55. (Previously presented) An apparatus according to claim 51, wherein the data is video data.

56. (New) The closed circuit broadcast security receiver of claim 1, wherein said signal from a second multi-antenna signal processing circuit comprises a recovered data signal.
57. (New) The closed circuit video system of claim 10, wherein said signal from a second multi-antenna signal processing circuit comprises a recovered data signal.
58. (New) The RF multi-antenna video data capture system of claim 17, wherein said signal from a second multi-antenna signal processing circuit comprises a recovered data signal.
59. (New) The apparatus according to claim 21, wherein said signal from a second multi-antenna signal processing circuit comprises a recovered data signal.
60. (New) The system according to claim 29, wherein said signal from a second multi-antenna signal processing circuit comprises a recovered data signal.